

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~A switch~~~~An apparatus~~, comprising:

a port configured to receive a write command frame, ~~the frame~~ having a header ~~comprising with an~~ originator exchange identifier (OX_ID) field ~~[[OX_ID]]~~ or ~~a receiver~~ RX_ID-exchange identifier (RX_ID) field, as well as ~~a~~ initiating-Host identifier field and a ~~target identifier~~ identifier field, wherein the Host and the target identifier fields identify Host and target devices, and wherein the OX-ID and the RX-ID exchange identifier fields enable the Host and the target to keep track of various transactions between each other;

a trapping mechanism configured to trap the write command frame; and

a processor configured to process the trapped write command frame by modifying the OX_ID field of the write command frame header to include a new value of an ~~[[the]]~~ OX_ID exchange identifier before sending the write command frame to the target;

wherein the processor is further configured to initialize a receiver exchange identifier (RX_ID) of a transfer ready command frame by assigning a value to the RX_ID field and send the transfer ready command frame to the initiating Host before receiving a transfer ready command frame from the target.

2. (Currently Amended) The ~~switch apparatus~~ of claim 1, wherein the ~~switch apparatus~~ is an initiating Switch coupled to the Host in a first SAN.

3. (Currently Amended) The ~~switch apparatus~~ of claim 2, wherein the processor of the initiating Switch is further configured to modify the write command frame before forwarding the write command to the target.

4. (Cancelled)

5. (Currently Amended) The ~~switch apparatus~~ of claim 14, wherein the ~~switch apparatus~~ uses the OX-ID value as a handle for accessing information pertaining to the write command session in a sessions ID table.

6. (Currently Amended) The ~~switch apparatus~~ of claim 2, wherein the processor of the initiating Switch is further configured to issue a Transfer Ready command to the Host.

7. (Currently Amended) The ~~switch apparatus~~ of claim 1, wherein the ~~switch apparatus~~ is further configured to use the RX-ID value as the RX_ID for all communication related to the write frame between the apparatus and the Host.

8. (Currently Amended) The ~~switch apparatus~~ of claim 1, wherein the ~~switch apparatus~~ is further configured to use the OX_ID value as the OX_ID in all communications between the apparatus and the target.

9. (Currently Amended) The ~~switch apparatus~~ of claim 2, wherein the initiating Switch is further configured to transfer additional data frames to the target when the initiating Switch receives a Transfer Ready command associated with the write command frame from the target.

10. (Currently Amended) The ~~switch apparatus~~ of claim 30, wherein the Switch is a target Switch coupled to the target.

11. (Currently Amended) The ~~switch apparatus~~ of claim 10, wherein the target Switch forwards the write command frame to the target.

12. (Currently Amended) The ~~switch apparatus~~ of claim 11, wherein the target Switch forwards data frames associated with the write command frame to the target after receiving a Transfer Ready command from the target.

13. (Currently Amended) The ~~switch apparatus~~ of claim 12, wherein the target Switch is further configured to buffer the data frames prior to receipt of the Transfer Ready command.

14. (Currently Amended) The ~~switch apparatus~~ of claim 12, wherein the target Switch is further configured to maintain a sessions ID table and to use the OX_ID value of the write command frame as an index to the session corresponding to the write command.

15. (Currently Amended) The ~~switch apparatus~~ of claim 10, wherein the target Switch is further configured to modify the RX_ID value for all communication related to the write command frame between the target Switch and the Host.

16. (Currently Amended) The ~~switch apparatus~~ of claim 5, wherein the target Switch is further configured to modify the OX_ID value ~~in with~~ communications between the target Switch and the target.

17. (Currently Amended) The ~~switch apparatus~~ of claim 1 wherein the ~~switch apparatus~~ is further configured to use the RX_ID value of trapped write commands to specify the amount of buffer space needed for the write command and use the write command frame to request the needed buffer space.

18. (Currently Amended) The ~~switch apparatus~~ of claim 17, wherein the ~~switch apparatus~~ is further configured to use the RX_ID value of trapped write commands to specify the amount of buffer space larger than needed for the write command and use the additional buffer space for subsequent write commands so that the apparatus need not wait for a Transfer Ready command to transfer data related to the subsequent write command.

19. (Currently Amended) The ~~switch apparatus~~ of claim 1, wherein the ~~switch apparatus~~ is further configured to, in the event the ~~switch apparatus~~ does not have sufficient buffer space for the write command, to either:

- (i) generate a busy status signal to the initiating Host;
- (ii) place the write command on a pending wait list; or
- (iii) forward the write command to the target.

20. (Currently Amended) The ~~switch apparatus~~ of claim 1, further comprising:
a first SAN including the ~~switch apparatus~~;
a second SAN; and
an inter-SAN network connecting the first SAN and the second SAN.

21-23. (Cancelled)

24. (Currently Amended) A method comprising:

receiving a write command at a switch, the write command specifying a host identifier corresponding to a host device and a target identifier corresponding to a target device, the write command also including an originator exchange identifier (OX_ID) field with an assigned value and an uninitialized receiver exchange identifier (RX_ID) field with a default value, wherein the OX-ID and the RX-ID fields enable the host and the target to keep track of various transactions between each other;

initializing the RX_ID receiver-exchange identifier (RX_ID) by assigning a value to the RX_ID field;

sending a transfer ready command including the initialized RX_ID to the host prior to receiving a transfer ready command from the target, wherein sending the transfer ready command to the host allows the switch to operate as a proxy for the target;

modifying the originator exchange identifier (OX_ID) of the write command to generate a modified write command; and

forwarding the modified write command to the target.

25. (Currently Amended) The method of claim 24, further comprising configuring the switch to forward data frames associated with the write command received in response to the transfer ready Ready command to the target.

26. (Previously Presented) The method of claim 25, wherein a second switch between the switch and the target receives data frames associated with the write command and buffers the data frames until a transfer ready command is received from the target.

27. (Currently Amended) An apparatus comprising:

means for receiving a write command at a switch, the write command specifying a host identifier corresponding to a host device and a target identifier corresponding to a target device, the write command also including an originator exchange identifier (OX_ID) field with an assigned value and an uninitialized receiver exchange identifier (RX_ID) field with a default value, wherein the OX-ID and the RX-ID exchange identifier fields enable the host and the target to keep track of various transactions between each other;

means for initializing the receiver exchange identifier (RX_ID) to generate an initialized RX_ID by assigning a value to the RX_ID field;

means for sending a transfer ready command including the initialized RX_ID to the host prior to receiving a transfer ready command from the target, wherein sending the transfer ready command to the host allows the switch to operate as a proxy for the target;

means for modifying the originator exchange identifier (OX_ID) field of the write command to generate a modified write command; and

means for forwarding the modified write command to the target.

28. (Currently Amended) The ~~switch apparatus~~ as recited in claim 1, wherein the ~~switch apparatus~~ is further configured to determine from the write command an amount of data to be written to the target, to ascertain whether it has sufficient storage space to buffer the amount of data, and to send the transfer ready command frame to the initiating Host before receiving the transfer ready command from the target if the ~~switch apparatus~~ has determined that it has sufficient storage space to buffer the amount of data.

29. (Currently Amended) A method comprising:

receiving a write command at a switch, the write command specifying a host identifier corresponding to a host device and a target identifier corresponding to a target device, the write command also including an originator exchange identifier (OX_ID) field with an assigned value and an uninitialized receiver exchange identifier (RX_ID) field with a default value, wherein the OX-ID and the RX-ID exchange identifier fields enable the host and the target to keep track of various transactions between each other;

forwarding the write command to the target;

initializing the receiver exchange identifier (RX_ID) field to generate an initialized RX_ID by assigning a value to the RX_ID field; and

sending a transfer ready command including the initialized RX_ID to the host prior to receiving a transfer ready command from the target, wherein sending the transfer ready command to the host allows the switch to operate as a proxy for the target.

30. (Currently Amended) An apparatus[[,]] comprising:

a processor; and

a memory, at least one of the processor or the memory being for:

receiving a write command at a switch, the write command specifying a host identifier corresponding to a host device and a target identifier corresponding to a target device, the write command also including an originator exchange identifier (OX_ID) field with an assigned

value and an uninitialized receiver exchange identifier (RX_ID) field with a default value, wherein the OX-ID and the RX-ID exchange identifier fields enable the host and the target to keep track of various transactions between each other;

forwarding the write command to the target;

initializing the receiver exchange identifier (RX_ID) by assigning a value to the RX_ID field and

sending a transfer ready command including the initialized RX_ID to the host prior to receiving a transfer ready command from the target, wherein sending the transfer ready command to the host allows the switch to operate as a proxy for the target.

31. (Currently Amended) The switch apparatus as recited in claim 1, wherein the trapping mechanism is configured to trap the write command frame if the write command frame designates a predetermined Host_ID and a predetermined target_ID.